



A New *Pegaeophyton* (Brassicaceae) from Nepal

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ABSTRACT. *Pegaeophyton nepalense* is described and illustrated. Its relationship to the other species of *Pegaeophyton* is discussed.

Pegaeophyton Hayek & Handel-Mazzetti is a genus of three Himalayan species restricted to high altitudes in Bhutan, China (Gansu, Qinghai, Sichuan, Xinjiang, Xizang, Yunnan), India (Assam, Sikkim, Uttar Pradesh), Myanmar, Nepal, and Pakistan (Kashmir). Many of the high-elevation Himalayan Brassicaceae are rather small, often overlooked, and poorly collected. The following new species is no exception, and it is known thus far from two collections, one each from eastern Nepal and adjacent Sikkim.

Pegaeophyton nepalense Al-Shehbaz, Arai & H. Ohba, sp. nov. TYPE: Nepal. Around Lamni Nama, 4200–4900 m, 15 Aug. 1977, H. Ohashi, H. Kanai, H. Ohba & Y. Tateishi 775117 (holotype, TI; isotype, MO). Figure 1.

Herba perennis nana. Folia rosulata, suborbiculata vel late ovata, 2–3(–4) mm longa, 1.5–2(–3) mm lata, adaxialiter trichomatibus 0.3–0.5 mm longis pubescentia. Inflorescentia uniflora; pedicello 4–5 mm longo. Flos sepalis oblongis, 1.1–1.3 mm longis; petalis albis, unguiculatis, obovatis vel suborbiculatis, 1.6–2 mm longis. Fructus ovoideus, 2–3 mm longus, 1.8–2 mm latus; valvulis mem-

branceis; stylo persistente 0.5–0.7 mm longo; septo nullo; replo valde complanato, 0.4–0.5 mm lato; seminibus 1–1.1 mm longis, 0.5–0.6 mm latis.

Minute perennial herbs with slender caudex ca. 1 mm diam. Leaves 5–12 per caudex, rosulate, adaxially moderately pubescent with trichomes 0.3–0.5 mm long, abaxially glabrous; petiole (3–)6–10(–14) mm long, slender at base, glabrous or with few trichomes; blade suborbicular to broadly ovate, 2–3(–4) mm long, 1.5–2(–3) mm wide, somewhat fleshy, base obtuse, margin entire, apex obtuse to subrounded. Flowers 3–8 per plant, solitary. Pedicels slender, distally pubescent with trichomes 0.3–0.5 mm all around, 4–5 mm at anthesis, not elongated in fruit. Sepals oblong, 1.1–1.3 mm long, 0.5–0.7 mm wide, free, spreading, not saccate, pubescent on distal half with trichomes to 0.3 mm long, membranous margin 0.05–0.1 mm wide, obtuse. Petals white, broadly obovate to suborbicular, slightly emarginate, 1.6–2 mm long; blade 0.8–1.1 mm long, 0.8–1.1 mm wide; claw 0.8–1.2 mm long. Filaments erect, white, slightly dilated at base, 1.2–1.5 mm long, persistent to fruit maturity; anthers suborbicular, 0.25–0.3 mm long, slightly sagittate at base. Nectar glands confluent, appearing as a tooth on each side of lateral stamen. Ovules 2–4. Fruit broadly ovoid to subglobose, 2–3 mm long,

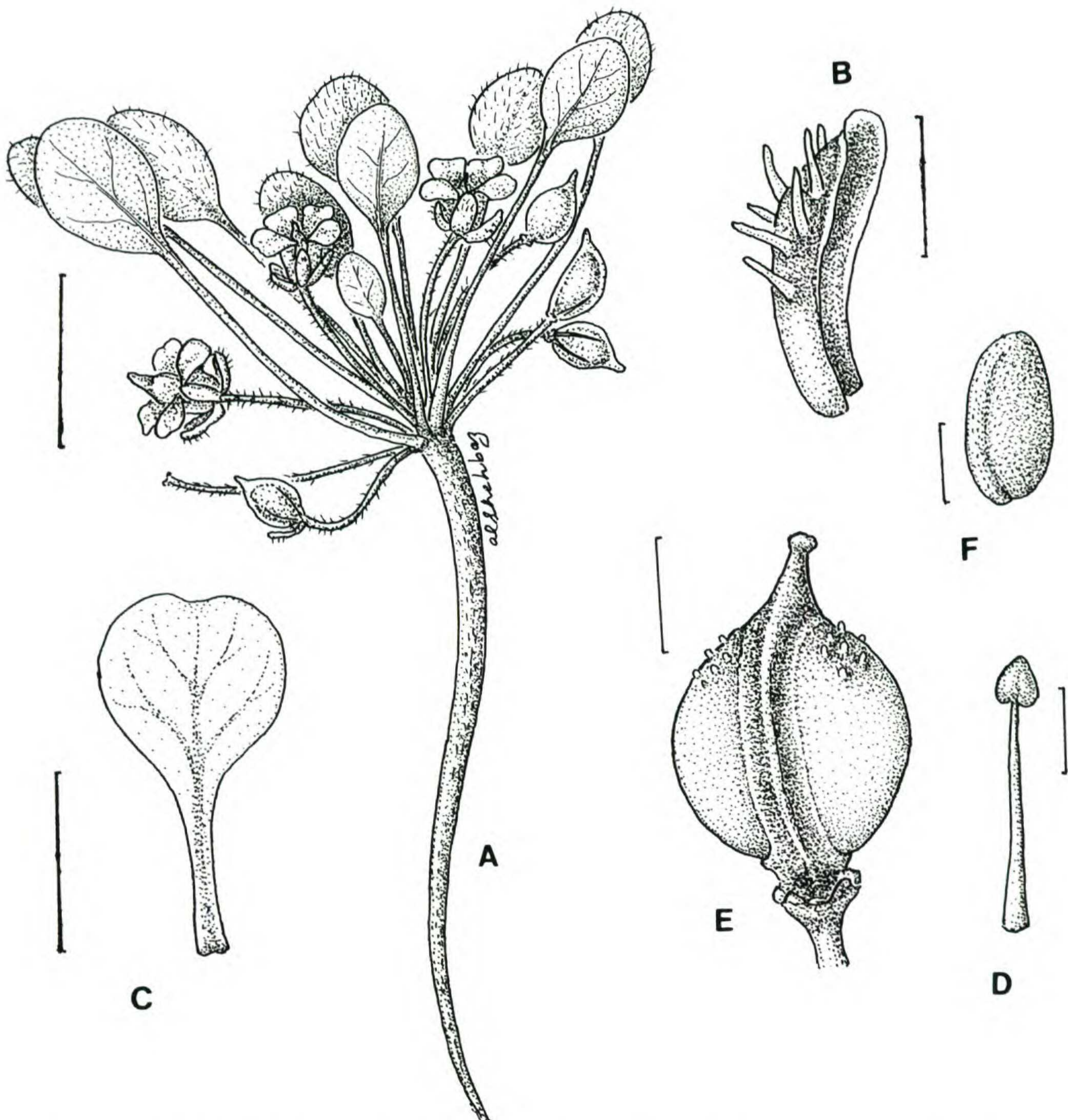


Figure 1. *Pegaeophyton nepalense*. —A. Plant. —B. Sepal. —C. Petal. —D. Stamen. —E. Fruit. —F. Seed. Scale bars: A = 5 mm; B, D & F = 0.5 mm; C & E = 1 mm. Drawn from the isotype at MO.

1.8–2 mm wide; valves membranous, rounded, usually minutely puberulent distally; gynophore 0.1–0.2 mm long; style 0.5–0.7 mm long; stigma entire; septum absent; replum strongly flattened, 0.4–0.5 mm wide, glabrous. Seeds oblong, brown, plump, 2–4 per fruit, 1–1.1 mm long, 0.5–0.6 mm wide.

Pegaeophyton nepalense is the smallest member of the genus. It is most closely related to *P. scapiflorum* (J. D. Hooker & Thomson) C. Marquand & Airy Shaw, from which it is readily distinguished by having ovoid to subglobose fruits with membranous, usually apically puberulent valves, sepals 1.1–1.3 mm long, petals 1.6–2 mm long, and plump seeds $1\text{--}1.1 \times 0.5\text{--}0.6$ mm. In contrast, *P. scapiflorum* has flattened, oblong to orbicular or ovate

fruits with glabrous, papery valves, sepals (2–)3–10 mm long, petals (4.5–)5–12(–15) mm long, and flattened seeds $(1.5\text{--})2\text{--}3.2\text{--}(4) \times 1\text{--}2\text{--}(3)$ mm. The latter species is quite variable and has been divided by Schulz (1926) and Guo (1987) into three varieties. *Pegaeophyton nepalense* is easily distinguished from *P. minutum* H. Hara, a species of Nepal, Sikkim, Bhutan, and Tibet (Hara, 1972), by having ovoid to subglobose instead of narrowly oblong fruits, trichomes 0.3–0.5 mm long instead of 0.02–0.08 mm long, and pedicels pubescent all around instead of one line extending along the entire pedicel length. The identity of *P. garhwalense* Chowdhery & Singh remains uncertain, and we have not examined any material of that species. Ac-

cording to Chowdhery and Singh (1985), *P. garhwalense* has pubescent filaments, a feature not yet reported for any of the Himalayan Brassicaceae with solitary flowers. The original description of the latter species neither indicated whether or not the septum is lacking nor described the cotyledonary position, both of which are key characters for the delimitation of *Pegaeophyton*.

Paratypes. INDIA. **Sikkim:** West District, near Goencha La, 37°36'N, 88°11'E, Long, McBeath, Noltie & Watson 605 (CAS, E, MO).

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